CLAIMS

We claim:

1. A method for inhibiting cell proliferation in an individual in vivo comprising administering to said individual a composition comprising a RAD51 antisense molecule.

2. A method for inducing sensitivity to radiation in an individual in vivo comprising administering to said individual a composition comprising a RAD51 antisense molecule.

3. A method for inducing sensitivity to a chemotherapeutic agent in an individual in vivo comprising administering to said individual a composition comprising a RAD51 antisense molecule.

4. A method for inhibiting the growth of a cancerous cell comprising administering to said cell a composition comprising a RAD51 antisense molecule.

5. A method for inducing sensitivity to radiation in a cancerous cell a composition comprising RAD51 antisense molecule.

6. A method for inducing sensitivity to a chemotherapeutic agent in a cancerous cell a composition comprising RAD51 antisense molecule.

7. A nucleic acid molecule having a sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2.

8. The method of Claim 1 further comprising the step of administering radiation.

9. A method of prolonging the survival of an individual comprising administration to said individual a Rad51 antisense molecule.

10. A method of treating cancer in an individual comprising administration to said individual a Rad51 antisense molecule.

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11. A method according to claim 10 wherein said administration comprises localized delivery of said Rad51 antisense molecule.

12. A method according to claim 10 wherein said administration comprises localized delivery of said Rad51 antisense molecule and said method further comprises radiation treatment of said patient.

13. A method according to claim 10 wherein said administration comprises localized delivery of said Rad51 antisense molecule and said method further comprises chemotherapeutic treatment of said patient.

14. A kit for diagnosing and/or treating cancer comprising a Rad51 antisense molecule.